

DOCKET NO.: CELL-0086
Application No.: 09/450,999
Notice of Allowance Dated: December 11, 2003

PATENT



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:
John Robert Porter, et al.

Confirmation No.: **8439**

Application No.: **09/450,999**

Group Art Unit: **1624**

Filing Date: **November 29, 1999**

Examiner: **Thomas C. McKenzie**

For: **β -ALANINE DERIVATIVES**

EXPRESS MAIL LABEL NO: EV 160092112 US
DATE OF DEPOSIT: January 9, 2004

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Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

COMMUNICATION AFTER ALLOWANCE PURSUANT TO 37 CFR § 1.312

In response to the Notice of Allowance dated **December 11, 2003**, reconsideration is respectfully requested in view of the amendments and/or remarks as indicated below:

- ☐ **Amendments to the Specification** begin on page _____ of this paper.
- ☐ **Amendments to the Claims** are reflected in the listing of the claims which begins on page _____ of this paper.
- ☐ **Amendments to the Drawings** begin on page _____ of this paper and include an attached replacement sheet.
- ☒ **Remarks/Arguments** begin on page 2 of this paper.

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REMARKS/ARGUMENTS

An Information Disclosure Statement was filed for the application on January 11, 2000 and was accompanied by a 1449 Form and copies of the ninety-one references listed on the form. Applicants received a return post card from the Patent Office indicating that the Information Disclosure Statement, 1449 Form, and all ninety-one listed references had been received by the Patent Office on January 14, 2000. A copy of the return post card is enclosed. Applicants have not yet received initialed copies of the 1449 Form from the Examiner. Courtesy copies of the Information Disclosure Statement, 1449 Form, and each of the listed references are being delivered directly to the Examiner. Applicants respectfully ask the Examiner to initial and return the 1449 Form to their undersigned representative prior to the due date for payment of the issue fee (March 11, 2004), confirming consideration of the listed references.

A Supplemental Information Disclosure Statement was filed for the application on April 25, 2000 and was accompanied by a 1449 Form and copies of the thirteen references listed on the form. Applicants received a return post card from the Patent Office indicating that the Information Disclosure Statement, 1449 Form, and all thirteen listed references had been received by the Patent Office on April 27, 2000. A copy of the return post card is enclosed. Applicants received initialed copies of the 1449 Form, but reference AM was not initialed and the Examiner indicated that the reference was missing. Courtesy copies of the Information Disclosure Statement, 1449 Form, and reference AM are being delivered directly to the Examiner. Applicants respectfully ask the Examiner to initial and return the 1449

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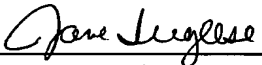
Notice of Allowance Dated: December 11, 2003

Form to their undersigned representative prior to the due date for payment of the issue fee

(March 11, 2004), confirming consideration of reference AM.

Respectfully submitted,

Date: January 9, 2004



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Paper: Information Disclosure Statement (w/first class stamp, in
dupl.); USPTO Form 1449 (7 Sheets); 91 References Cited / All
Copies Submitted; Postcard

Applicant(s) : John Robert Porter et al.

Title: β -ALANINE DERIVATIVES

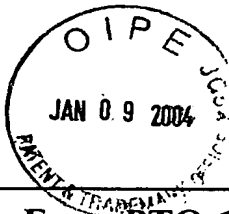
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Filed: November 29, 1999

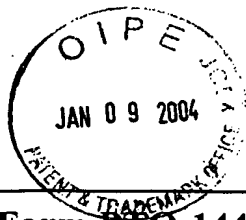
Docket No.: CELL-0086 (DAC/jjkeeler)

Date Sent: January 11, 2000

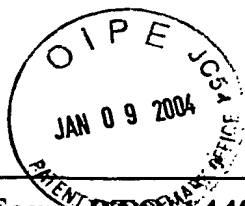




Form PTO-1449 Modified List of Patent and Publications Cited by Applicant (Use several sheets if necessary) U.S. Department of Commerce Patent and Trademark Office		Docket No. CELL-0086	Serial No. 09/450,999
		Applicant John Robert Porter, John Clifford Head, Graham John Warrellow, and Sarah Catherine Archibald	
		Filing Date November 29, 1999	Group Not Yet Assigned
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)			
	AA	Abraham, W.M. et al., " α_4 -Integrins Mediate Antigen-Induced Late Bronchial Responses and Prolonged Airway Hyperresponsiveness in Sheep," <i>J. Clin. Invest.</i> , 1994 , 93, 776-787	
	AB	Bach et al., "Anomalous optical rotation and circular dichroism of N-thioacylated.alpha.-amino acids and deriva," <i>Acta Chem. Scand.</i> , 1966 , 20(10), 2781-2794	
	AC	Barrett, G.C., "Circular dichroism of N-thiobenzoly-1- α -amino acids. III. Their circular dichroism through the near-ultraviolet wavelength range," <i>J. Chem. Soc.</i> , 1967 , Section C, 1-5	
	AD	Berlin, C. et al., " $\alpha_4\beta_7$ Integrin Mediates Lymphocyte Binding to the Mucosal Vascular Addressin MAdCAM-1," <i>Cell</i> , 1993 , 74, 185-195	
	AE	Binns, R.M. et al., "The Role of E-Selectin in Lymphocyte and Polymorphonuclear Cell Recruitment into Cutaneous Delayed Hypersensitivity Reactions in Sensitized Pigs," <i>J. Immunol.</i> , 1996 , 157, 4094-4099	
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	AG	Cardarelli, P.M. et al., "Cyclic RGD Peptide Inhibits $\alpha_4\beta_7$ Interaction with Connecting Segment 1 and Vascular Cell Adhesion Molecule," <i>J. Biol. Chem.</i> , 1994 , 269(28), 18668-18673	
	AH	<i>Chemical Abstracts</i> , "N-[4-Thiazolidinyl)carbonyl]amino acid derivatives," 1981 , 95(19), Abstract No. 169173f, 1 page	
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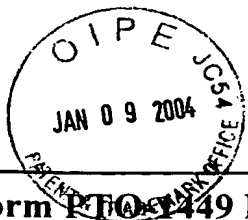
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	AJ	Cornforth, J.W., "Oxazoles and Oxazolones," <i>Chem. Penicillin</i> , Princeton Book Review, 1949, pages 688, 799, and 800	
	AK	Ferguson, T.A. et al., "Two integrin-binding peptides abrogate T cell-mediated immune responses <i>in vivo</i> ," <i>Proc. Natl. Acad. Sci. USA</i> , 1991, 88, 8072-8076	
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	AN	Hartke, K. et al., "Dithio and thiono esters. Part 61. Synthesis of α -amino dithioesters and endothiodipeptides," <i>J. Prakt. Chem.</i> , 1996, 338(3), 251-256	
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	AQ	Issekutz, T.B., "Inhibition of Lymphocyte Endothelial Adhesion and In Vivo Lymphocyte Migration to Cutaneous Inflammation by TA-3, a New Monoclonal Antibody to Rat LFA-1," <i>J. Immunol.</i> , 1992, 149(10), 3394-3402	
	AR	Jaynes, B.H. et al., "Synthesis and <i>In Vivo</i> Antibacterial Activity of Hygromycin a Analogs Modified at the C _{4'} Aryl Position," <i>Bioorg. Med. Chem. Letts.</i> , 1993, 3(8), 1531-1536	
	AS	Jepson, J.B. et al., "Reactions of α -Thioacylamino-acids. Their conversion into Thiazolones and Derivatives Thereof," <i>J. Chem. Soc.</i> , 1955, 1791-1797	
	AT	Lei, H. et al., "Efficient Synthesis of a Phosphinate Bis-Amino Acid and Its Use in the Construction of Amphiphilic Peptides," <i>J. Org. Chem.</i> , 1994, 59, 4206-4210	
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	AV	Marlin, S.D. et al., "LFA-1 Immunodeficiency Disease," <i>J. Exp. Med.</i> , 1986 , 164, 855-867	
	AW	Masahiko, N., Japanese Patent No. 57-080370 published May 19, 1982, "Alpha-Methylcinnamic Acid Derivative, its Preparation and Antilipemic Agent Containing The Same," <i>Patent Abstracts of Japan</i> , 1982 , 1 page	
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	AZ	Ohki, S. et al., "Synthesis of quinolizine derivatives. V. Studies on Diastereoisomer of Ethyl 3-Quinolizidinecarboxylate," <i>Chem. Pharm. Bull.</i> , 1959 , 7(6), 708-712	
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	BC	Podolsky, D.K. et al., "Attenuation of Colitis in the Cotton-top Tamarin by Anti-α4 integrin Monoclonal Antibody," <i>J. Clin. Invest.</i> , 1993 , 92, 372-380	
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	BE	Shroff, H.N. et al., "Small Peptide Inhibitors of α ₄ β ₇ Mediated MAdCAM-1 Adhesion to Lymphocytes," <i>Barge. Med. Chem. Letts.</i> , 1996 , 6(21), 2495-2500	
	BF	Sonnenberg, A., "Integrins and Their Ligands," <i>Curr. Topics Microbiol. Immunol.</i> , 1993 , 184, 7-35	
	BG	Springer, T.A., "Adhesion receptors of the immune system," <i>Nature</i> , 1990 , 346, 425-434	
	BH	Springer, T.A., "Traffic Signals for Lymphocyte Recirculation and Leukocyte Emigration: The Multistep Paradigm," <i>Cell</i> , 1994 , 76, 301-314	
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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)			
	BI	Tsunematsu, H. et al., "Hydrolysis of phenylthiazolones of <i>p</i> -guanidinophenylalanine and arginine by trypsin and related enzymes," <i>J. Biochem.</i> , 1983 , 94(4), 1119-1125	
	BJ	Vanderslice, P. et al., "A Cyclic Hexapeptide is a Potent Antagonist of $\alpha 4$ Integrins," <i>J. Immunol.</i> , 1997 , 158, 1710-1718	
	BK	Yanagisawa, H. et al., WO 97/37970, "Preparation of phenylalkylcarboxylic acid derivatives lowering blood sugar level," <i>Chemical Abstracts</i> , 1997 , Abstract 127:307307, 4 pages	
	BL	Yang, X., "A predominant role of integrin $\alpha 4$ in the spontaneous development of autoimmune diabetes in nonobese diabetic mice," <i>Proc. Natl. Acad. Sci. USA</i> , 1994 , 91, 12604-12608	
	BM	Yednock, T.A., "Prevention of experimental autoimmune encephalomyelitis by antibodies against $\alpha 4\beta 1$ integrin," <i>Nature</i> , 1992 , 356, 63-66	
	BN	Whitlock, B.J. et al., "Structure and synthesis of lathyrine," <i>J. Org. Chem.</i> , 1965 , 30, 115-118	
	BO	WPI / Derwent No. XP-002076854, Japanese Patent No. JP 04 193 895 A (Ajinomoto, K.K.), July 13, 1992 , DW9234, 1 Page, Abstract Only	
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				Filing Date November 29, 1999	Group Not Yet Assigned	
U. S. PATENT DOCUMENTS						
Examiner Initial		Document No.	Date	Name	Class	Subclass
	BQ	4,987,132	01/22/91	Mase et al.	514	252
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	BS	5,260,277	11/09/93	McKenzie	544	18
	BT	5,296,486	03/22/94	Lazer et al.	514	333
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	BW	0 144 230 A	06/12/85	EP	X	
	BX	0 322 068 A1	06/28/89	EP	X	
	BY	0 394 989 A2	10/31/90	EP	X	
	BZ	0 596 406 A1	05/11/94	EP	X	
	CA	0 710 659 A1	05/08/96	EP	X	
	CB	0 842 943 A2	05/20/98	EP	X (Abstract Only)	
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FOREIGN PATENT DOCUMENTS

Examiner Initial		Document No.	Date	Country	Translation	
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	CG	WO 94/29285	12/22/94	PCT	X	
	CH	WO 95/15973	06/15/95	PCT	X	
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	CJ	WO 95/13811	05/26/95	PCT	X (Abstract Only)	
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	CR	WO 98/04247	02/05/98	PCT	X	
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FOREIGN PATENT DOCUMENTS							
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	DD	WO 99/06435	02/11/99	PCT	X		
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	DG	WO 99/10312	03/04/99	PCT	X		
	DH	WO 99/10313	03/04/99	PCT	X		
	DI	WO 99/20272	04/29/99	PCT	X		
	DJ	WO 99/35163	07/15/99	PCT	X		
	DK	JP 03 135962	06/10/91	Japan	X (Abstract Only)		
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	DM	DE 23 16 881 A	10/11/73	Germany	X (Abstract Only)		
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Paper: Supplemental Information Disclosure Statement (w/first class stamp, in duplicate); USPTO Form 1449 (2 sheets); 13 references cited/all copies submitted; check in the amount of \$240.00; return postcard

Applicant(s) : John Robert Porter et al.

Title: β -ALANINE DERIVATIVES

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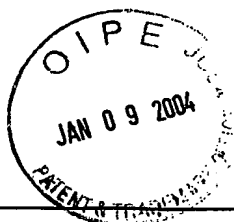
Filed: November 29, 1999

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Date Sent: April 25, 2000

DAC:EA McLoud





Sheet 1 of 2

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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)			
	AA	Buckle, D.R., et al., "Non Thiazolidinedione Antihyperglycaemic Agents. 1: α -Heteroatom Substituted β -Phenylpropanoic Acids," <i>Bioorg. Med. Chem. Lett.</i> , 1996 , 6(17), 2121-2126	
	AB	Keenan, R.M. et al., "Discovery of Potent Nonpeptide Vitronectin Receptor ($\alpha v\beta_3$) Antagonists," <i>J. Med. Chem.</i> , 1997 , 40(15), 2289-2292	
	AC	McDowell, R.S. et al., "From Peptide to Non-Peptide. 2. The <i>de Novo</i> Design of Potent, Non-Peptidal Inhibitors of Platelet Aggregation Based on a Benzodiazepinedione Scaffold," <i>J. Am. Chem. Soc.</i> , 1994 , 116, 5077-5083	
	AD	Miller, W.H. et al., "Structure-Activity Relationships in 3-Oxo-1,4-Benzodiazepine-2-Acetic Acid GPIIb/IIIa Antagonists. The 2-Benzazepine Series," <i>Bioorg. Med. Chem. Lett.</i> , 1996 , 6(21), 2481-2486	
	AE	Ukai, Y. et al., "A novel synthetic inhibitor of endopeptidase-24.15," <i>Chemical Abstracts</i> , 1997 , 127(2), 1 page	
	AF	Venturella, V.S. et al., "Substituted 1,3-Dihydro-4H-furo[3,4- <i>d</i>]-1,3-benzodiazepin-3-ones: Synthesis and Scope of the Method," <i>J. Heterocyclic Chem.</i> , 1969 , 6(5), 671-679	
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FOREIGN PATENT DOCUMENTS						
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	AH	WO 93/00095	01/07/93	PCT	X	
	AI	WO 93/08174	04/29/93	PCT	X	
	AJ	WO 95/19356	07/20/95	PCT	X (Abstract Only)	
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	AM	DE 28 37 264 A1	03/01/79	Germany	X (Abstract Only)	
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